

CD73 (V-20): sc-14682

BACKGROUND

CD73 (also designated ecto-5'-nucleotidase, E5NT, NT, NT5, NTE, eN and eNT) is a glycosyl-phosphatidylinositol (GPI)-anchored adhesion protein that catalyzes the dephosphorylation of extracellular purine and pyrimidine nucleotides to their corresponding bioactive nucleosides. CD73 is a dimer of two identical subunits that depends on GPI to link with the external face of the plasma membrane. Similar to other GPI-anchored proteins, CD73 mediates co-stimulatory signals in T cell activation. CD73 has few structural variants, yet elicits diverse biological function through differential regulation in endothelial cells (EC), subpopulations of B and T cells, germinal center follicular dendritic cells and on thymic medullary reticular fibroblasts. For example, IgG mediated neutralization of CD73 interferes with lymphocyte adhesion to EC, and blocks aggregation of germinal center B cells and follicular dendritic cells. Furthermore, IgG-mediated targeting of lymphocyte CD73, but not of endothelial cell CD73, causes shedding of CD73 and tyrosine phosphorylation of proteins.

CHROMOSOMAL LOCATION

Genetic locus: NT5E (human) mapping to 6q14.3; Nt5e (mouse) mapping to 9 E3.1.

SOURCE

CD73 (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CD73 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14682 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD73 (V-20) is recommended for detection of CD73 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). CD73 (V-20) is also recommended for detection of CD73 in additional species, including bovine and porcine.

Suitable for use as control antibody for CD73 siRNA (h): sc-42862, CD73 siRNA (m): sc-42863, CD73 shRNA Plasmid (h): sc-42862-SH, CD73 shRNA Plasmid (m): sc-42863-SH, CD73 shRNA (h) Lentiviral Particles: sc-42862-V and CD73 shRNA (m) Lentiviral Particles: sc-42863-V.

Molecular Weight of CD73: 71 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or JEG-3 whole cell lysate: sc-364255.

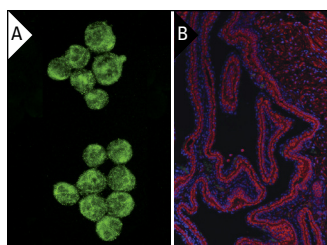
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



CD73 (V-20): sc-14682. Immunofluorescence staining of methanol-fixed K-562 cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed paraffin embedded C57BL/6 mouse placenta showing cytoplasmic staining. Kindly provided by Jenna Tabor-Godwin, PhD Candidate and Dr. Ralph Feuer, San Diego State University (B).

SELECT PRODUCT CITATIONS

1. Kishore, B.K., et al. 2007. Administration of poly-D-glutamic acid induces proliferation of erythropoietin-producing peritubular cells in rat kidney. *Am. J. Physiol. Renal Physiol.* 292: F749-F761.
2. Leth-Larsen, R., et al. 2009. Metastasis-related plasma membrane proteins of human breast cancer cells identified by comparative quantitative mass spectrometry. *Mol. Cell. Proteomics* 8: 1436-1449.
3. Santiago, J.A., et al. 2009. Heterogeneous differentiation of human mesenchymal stem cells in response to extended culture in extracellular matrices. *Tissue Eng. Part A* 15: 3911-3922.
4. Tabor-Godwin, J.M., et al. 2010. A novel population of myeloid cells responding to coxsackievirus infection assists in the dissemination of virus within the neonatal CNS. *J. Neurosci.* 30: 8676-8691.
5. Kouris, N.A., et al. 2011. A nondenatured, noncrosslinked collagen matrix to deliver stem cells to the heart. *Regen. Med.* 6: 569-582.
6. Mançanares, C.A., et al. 2015. Isolation and characterization of mesenchymal stem cells from the yolk sacs of bovine embryos. *Theriogenology* 84: 887-898.

PROTOCOLS

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